

30753. STULOV, N. N.

Kristally l'da. Zapiski Vsesoyuz. mineral. o-va, 2-ya seriya, 1949,
vyp. 3, s. 172-76.

STULOV, N.N.

Twin intergrowths of cassiterite. Zapiski Vsesoyuz. Mineralog.
Obshchestva 82, 22-31 '53. (MLRA 6:4)
(CA 47 no.17:8593 '53)

FERSMAN, Aleksandr Yevgen'yevich, 1883-1945; BELYANKIN, D.S., akademik,
redaktor [deceased]; SHAFRANOVSKIY, I.I., prof., redaktor; STULOV, N.M.
redaktor; SMIRNOVA, A.V., tekhnicheskij redaktor

[Crystallography of diamonds] Kristallografiia almaza. Red.i kommentarii D.S.Beliankina i I.Shafranovskogo. [Moskva] Izd-vo Akademii nauk SSSR, 1955. 566 p. (MIRA 9:1)

(Diamonds)

USSR.

Products of high-temperature calcination of layer-structure silicates. V. I. Mikheyev and N. N. Stulov. *Zapiski Vsesoyuz. Mineralog. Obshchestva* 84, 3-29 (1955).—The cryst. phases stable above 1050–1200° are γ - Al_2O_3 , γ - Fe_2O_3 , spinels, MgFe_2O_4 , enstatite, clinenstatite, mullite, and framework aluminosilicates. Anhydrous pyrophyllite appears as a remarkable meta structure between 900° and 1000°. The spinellides are decomn. products of muscovite, biotite, lepidomelane, glauconite, montmorillonite, and chlorites; γ - Al_2O_3 appears in *m*-kaolinite. Spinel, however, are not formed from phlogopite, talc, and pyrophyllite. All of the spinel-forming minerals are characterized by the groups $[\text{AlO}_4]$ and/or $[\text{FeO}_4]$ in their layer structures, and $[\text{Fe}^{III}\text{O}_4]$ is changed to $[\text{Fe}^{III}\text{O}_4]$. If intermediate amorphous metaphases are formed, e.g. in kaolinite or montmorillonite, spinels are the end products because the $[\text{AlO}_4]$ groups are preserved. In pyrophyllite, however, no amorphisation occurs, and a real metastructure, not a spinellide, appears. Groups $[\text{AlO}_4]$ are introduced together with $[\text{SiO}_4]$, either into frameworks of aluminosilicates or into glasses; phlogopite is thus changed to olivine glass in which the K content is also contained. Similarly, talc is changed to enstatite; also in chlorites the end product is olivine, although in this case assoc. with spinel. The special spinel phase formed from a muscovite with 0.87% MgO had the elementary cell dimension $a_0 = 7.695 \text{ kX}$; from Vegard's law applied for spinels enriched in Al_2O_3 it is concluded that the present " γ - Al_2O_3 " phase contained 8 mols. Al_2O_3 combined with 3 mols. of MgAl_2O_4 (with $a_0 = 7.965 \text{ kX}$). The

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calcn. showed that 9% of this complex spinel crystd. from the decompn. products of the mica. The spinel in the calcination products of biotite is a nearly pure magnetite (γ - Fe_3O_4 with $a_0 = 8.369$ kX), while that derived from lepidomelane corresponds to $(\text{Fe}_{1.1}^{2+}\text{Fe}_{0.9}^{3+})\text{Fe}_2^{3+}\text{O}_4$ (with $a_0 = 8.324$ kX). For the detn. of the olivine among the decompn. products of phlogopite the parameter $b = 10.470$ kX is characteristic for its compn. $(\text{Mg}_{0.8}\text{Fe}_{0.2})_2\text{SiO}_4$. The magnesioferrite from glaucophane is nearly pure MgFe_2O_4 ($a_0 = 8.362$ kX); the spinel from "KII" (contmorillonite) is MgAl_2O_4 ($a_0 = 8.108$ kX) contg. a slight amt. of Fe^{2+} . Unexplained is the occurrence of some strong lines in the powder diagram which, in cubic indexing, corresponds with $a_0 = 14.17$ kX to a doubled cristobalite structure, but this mineral could not be identified in larger amts. in microscopic examn.; $\kappa = 1.635$. The spinel in the decompn. products of chlorite has $a_0 = 8.104$ kX, corresponding to about $(\text{Mg}_{0.8}\text{Fe}_{0.2})_2\text{Al}_2\text{O}_4$ with some substitution of Al^{3+} by Fe^{3+} . About half the amt. of the spinel, there is an olivine with $b_0 = 10.470$ kX $(\text{Mg}_{0.8}\text{Fe}_{0.2})_2\text{SiO}_4$. The decompn. products of talc do not entirely correspond to enstatite or clin-

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enstatite (cf. Ewell, *et al.*, C.A. 30, 1700¹). The mullite formed from kaolinite at 1250° was accurately indexed in the powder diagram by using the parameters given by Betekhtin (*Mineralogy*, 1980 (C.A. 47, 6319c)) ($a_0 = 7.40$; $b_0 = 7.63$; $c_0 = 5.74$ kX), but the authors find in a revision that a_0 is doubled ($= 11.620$ kX). Also a small amt. of α -cristobalite was detected; the γ -Al₂O₃ formed at 900° is pure (with $a_0 = 7.39$ kX), equal to that produced by the calcination of NH₄ alum. Pyrophyllite shows after calcination at 900° only a slight swelling of the elementary cell dimensions, with somewhat less sharp interference lines (the line with $d_0 = 4.40$ kX is the strongest); a true metaphase with $a_0 = 5.068$; $b_0 = 8.910$; $c_0 \sin \beta = 16.51$ kX; $\beta = 100^\circ$ is identified, which at 1250° is changed into mullite, and shows at 1000° some mullite with the metaphase mixed, perhaps with some γ -Al₂O₃ (indicated by some weak lines).
W. Eitel

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STUHOV, N. N.

Mineral formation in natural electric fields. V. I. Mokheval, N. N. Stulov, and I. G. Tsibul'skiy. *Sopka* 1970, No. 4, 125-130, 12 figs.

oxidation-reduction potentials may contribute to the formation of secondary minerals. The amounts of dissolved material at a given time may be very low, but the time factor of galvanic reactions may bring about considerable changes in the

coal-bearing schists and limestones of Upper Silurian, or

[illegible]

MOKIYEVSKIY, V.A.; STULOV, N.N.; TSIGEL'MAN, I.S.

Mineralization in a natural electrical field. Zap.Vses.min.ob-va
85 no.1:39-48 '56. (MIRA 9:7)
(Mineralogical chemistry)

STULOV, N.N.; SHAFRANOVSKIY, I.I.; LAZARENKO, Ye.K.

Viktor Ivanovich Mikheev; obituray. Min.sbor. no.11:403-406
'57. (MIRA 13:2)

(Mikheev, Viktor Ivanovich, 1912-1956)

TATARSKIY, V.B.; FRANK-KAMNETSKIY, V.A.; BURAKOVA, T.N.; NARDOV, V.V.;
PISTROV, T.G.; KONDRAT'YEVA, V.V.; KAMNETSEV, I.Ye.; CHERNYSHEVA,
V.P.; ALEKSEYEVA, N.P.; ARTSYBASHEVA, T.F.; BARANOVSKAYA, N.I.;
BUSSEN, I.V.; VERKHNETSKO, I.A.; GNEVUSHEV, M.A.; GOYKO, Ye.A.;
KOMKOV, A.I.; KOTOVICH, V.A.; LITVINSKAYA, G.P.; MIKHEYEVA, I.V.;
MOKIYEVSKIY, V.A.; PETROVA, L.V.; POPOV, G.M.; SAFRONOVA, G.P.;
SOBOLEVA, V.V.; STULOV, N.N.; TUGARINOVA, V.G.; SHAFRANOVSKIY, I.I.;
SHTERNBERG, A.A.; YANULOV, K.P.

O.M. Ansheles; obituary. Vest, IGU 12 no.18:152-154 '57.(MIRA 11:3)
(Ansheles, Osip Markovich, 1885-1957)

AUTHOR: Shafranovskiy, I.I. and Stulov, N.N. 70-2-1/24
 TITLE: Viktor Ivanovich Mikheev - Obituary
 PERIODICAL: "Kristallografiya" (Crystallography), 1957, Vol.2,
 No.2, pp. 203-206 (U.S.S.R.)

ABSTRACT: Professor Mikheev died suddenly in December, 1956 at the age of 45. He became interested at a very early age in crystallography. In March, 1936, he defended successfully his dissertation "Standard Debye rings of cast stone minerals". In the same year, he became "Dozent" of the Chair of Crystallography and lecturer on the course of general crystallography and X-ray investigation of crystals. Except for his military service during the war, he was associated throughout his life with the Mining Institute (Gornyy Institut). He published over 75 scientific papers and, in addition, he wrote 56 scientific reports on investigations of individual minerals and their groups carried out for various scientific and industrial establishments. For identifying the composition of mixtures and of minerals, the Debye Scharrer method was considered the most appropriate but, for this purpose, it was necessary to compile and arrange in their definite order the data calculated from minerals to be used as standards. This enormous task was materialised by publishing the "Roendgenometric" determination

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Viktor Ivanovich Mikheev - Obituary. (Cont.) 70-2-1/24

of minerals, the first part of which contains data for 142, the second part for 146 minerals; the third part for 146 minerals was put into print shortly before the death of Professor Mikheev. In addition to the colossal work involved in compiling the above mentioned book, Mikheev carried out roendgenometric investigations of individual minerals and their groups, and the results of this work were published in individual papers. It is largely due to his work that roendgenometric diagnosis of minerals is so successfully used in the Soviet Union. From 1950 onwards, Prof. Mikheev published numerous papers on homology problems and later on he published the monograph "Homology of Crystals" which also served as a doctor dissertation (in 1952). His work on homology was highly valued by the Soviet Ac.Sc. and he was awarded in 1950 the E.S. Fedorov prize for this work. Mikheev produced 218 types of homology and these allowed accurate classification and systemisation of crystals with low degrees of symmetry. The work on homology enabled solution of the practically important problem of identifying the Debye rings of low symmetry substances. In 1953, Mikheev was nominated Professor of the Crystallography Chair.

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STULOV, N.N.; SHAFRANOVSKIY, I.I.; MOKIYEVSKIY, V.A.; POPOV, G.M.; BETEKH-
TIN, A.G.; NIKOLAYEV, V.A.; ANSHELES, O.M.; GRIGOR'YEV, D.P.;
YEROFEYEV, B.N.; TATARSKIY, V.B.; SOLOV'YEV, S.P.; NIKITIN, V.D.;
RUDENKO, S.A.; DUBININA, V.N.; ALYAVDIN, V.F.; VLADIMIROV, B.N.;
KAZITSYN, Yu.V.; FRANK-KAMENETSKIY, V.A.; KALININ, A.I.; BALA-
SHOVA, M.N.; SAL'DAU, E.P.; DOLIVO-DOBROVOL'SKAYA, G.M.; LAV-
RENT'YEV, M.F.

Viktor Ivanovich Mikheev, Zap. Vses. min. ob-va 86 no.2:317-320
'57. (MLRA 10:6)

(Mikheev, Viktor Ivanovich, 1912-1956)

STULOV, N.N.; SHAFRANOVSKIY, I.I.

Achievements in Soviet crystallography. Zap.Vses.min.ob-va 86
no.5:595-606 '57. (MIRA 10:10)

(Crystallography)

BALASHOVA, M.N.; SAL'DAU, E.P.; STULOV, N.N.

The Fedorov anniversary session. Zap.Vses.min.ob-va 86 no.5:632-639
'57. (MIRA 10:10)

(Mineralogy)

SOV/70-3-5-23/24

AUTHORS: Shafranovskiy, I.I., Stulov, N.N., Tatarskiy, V.B.
and Frank-Kamenetskiy, V.A.

TITLE: Certain Observations in Connection with the Article of
Academician N.V. Belov "On a Course of Geometrical
Crystallography for Physicists" (Neskol'ko zamechaniy
po povodu stat'i Akad. N.V. Belova "O kurse geometricheskoy
kristallografii dlya fizikov")

PERIODICAL: Kristallografiya, 1958, Vol 3, Nr 5, pp 637-638 (USSR)

ABSTRACT: Complaints by Leningrad mineralogists against the
excessive physical bias by Belov in his article.
There are 4 references, 2 of which are Soviet and
2 German.

ASSOCIATION: Leningradskiy gornyy institut. Leningradskiy
gosudarstvennyy universitet.
(Leningrad Mining Institute and Leningrad State
University)

SUBMITTED: May 23, 1958

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SOLOV'YEV, S.P.; STULOV, N.N.

Second all-Union conference on petrography. Zap. Vses. min. ob-va
87 no.5:618-624 '58. (MIRA 12:1)
(Petrology)

STULOV, N.N.; SHAFRANOVSKIY, I.I.

Crystallography and mineralogy in the Leningrad Mining Institute.
Zap. IGI 40:22-28 '59. (MIRA 14:5)

(Leningrad—Crystallography—Study and teaching)

(Leningrad—Mineralogy—Study and teaching)

SHAFRANOVSKIY, I.I.; MOKIYEVSKIY, V.A.; STULOV, N.N.

Discussion on the nomenclature of crystallographic forms at the
French Mineralogical Society. Zap.Vses.min.ob-va 88 no.4:492-495 '59.
(MIRA 12:11)

1. Deystvitel'nyye chleny Vsesoyuznogo mineralogicheskogo obshchestva.
(Crystallography--Terminology)

STULOV, N.N.; SHAFRANOVSKIY, I.I.

New materials on the active life of E.S. Fedorov; on the 40th anniversary of his death. Zap. Vses. min. ob-va 88 no.5:578-582 '59. (MIRA 13:2)

(Fedorov, Evgraf Stepanovich, 1853-1919)
(Crystallography)

STULOV, N. N.

"Zapiski" of the Tajik Division of the All-Union Mineralogical
Society. Zap. Vses. min. ob-va 88 no.6:733 '59.

(MIRA 13:8)

(Tajikistan--Mineralogy--Periodicals)

SHAFRANOVSKIY, I.I., prof. Prinimeli uchastiye: MOKIYEVSKIY, V.A.; STULOV, N.N.; GENDELEV, S.Sh.; PIS'MENNY, V.A.; BALASHOVA, M.N.; MIKHEYEVA, I.V.; SAL'DAU, E.P.; KALININ, A.I.; DOLIVO-DOBROVOL'SKAYA, G.M. PIOTROVSKIY, G.L., dotsent, otv.red.; FURMAN, K.P., red.; MALIYKO, A.V., tekhred.

[Lectures on the morphology of mineral crystals] Lektsii po kristal-lomorfologii mineralov. L'vov, Izd-vo L'vovskogo univ., 1960.
161 p. (MIRA 14:1)

1. Kafedra kristallografii Leningradskogo gornogo instituta (for Mokiyeveskiy, Stulov, Gendeleev, Pis'mennyy, Balashova, Mikheyeva, Sal'dau, Kalinin, Dolivo-Dobrovol'skaya).
(Minerals) (Crystals)

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3,1550(1057,1062,1129)

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AUTHOR: Stulov, N.K.

TITLE: The roentgenometric study of the material composition
of certain meteorites

PERIODICAL: Akademiya nauk SSSR. Komitet po meteoritam.
Meteoritika, no. 19, 1960, 63-84

TEXT: This study was carried out in collaboration with Professor V.I. Mikheyev, and had two objectives in its first stage: a) to determine the mineral composition of certain meteorites from the collection at the Gornyy Muzey (Mountain Museum) and b) to investigate specially selected mineral parts of meteorites, forwarded to the laboratory by L.G. Kvasha from the Committee for Meteorites of the AS USSR. By undertaking these tasks the author aimed at improving the method of identification of minerals and at developing standard roentgenograms for them. In the last stage of

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this study the aim was to work out a series of tables recording X-ray crystallographic data for all minerals present in meteorites. Unfortunately the death of V.I. Mikheyev prevented realization of this project. The present article is an account of those roentgenometric studies which were actually conducted with the deceased. Method of investigation: Samples of iron meteorites from the Gornyy Muzey were taken by means of filing or drilling with a hard bore; samples given by L.G. Kvasha were already pulverized. Sometimes they were ground additionally to give particles, ranging from 0.01 - 0.001 mm. A column of the material was then pressed in a glass tube (diameter: 0.8 mm). Two X-ray photographs were taken of each sample, one of the pure material the second of its mixture with rock-salt. Distances between symmetric lines were measured with a 0.5 mm ruler (an average of 3 measurements were taken for every pair of lines). The intensity of lines was evaluated visually and photographs were taken with a camera 143 mm in diameter in a Haddings ionic tube with an iron anticathode.

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The following wave-lengths were used for calculations:

$$\lambda_{K\alpha_1} = 1,936012 \text{ kX}; \quad \lambda_{K\alpha_2} = 1,932076 \text{ kX};$$

$$\lambda_{K\beta} = 1,753013 \text{ kX},$$

where kX = Kilo XU. Some modifications of X-ray photography were used: a) The films were placed in such positions that their ends did not point toward the incoming diaphragm, but in the reverse direction; in this way, lines formed by broad reflection angles were situated in the center of the film; b) Reflection angles were measured with a precision of up to 0.1'; c) the calculation of lattice distances were according to the Bragg-Wulf formula; d) Considerable quantities of rock-salt were added to the samples (up to 60 %) to obtain more definite standard lines for the salt; these lines were used for correcting the obtained data. The time of exposure for iron-meteorite samples was 8 ma. x 4.5 hours.

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X-ray photographs of other samples were made with a camera of 68 mm in diameter with an iron anticathode, the radiation wave lengths being as follows: $\lambda_{K\alpha} = 1,934 \text{ kX}$; $\lambda_{K\beta} = 1,753 \text{ kX}$;

time of exposition 8 ma. x 2 hours, or 3.5 hours. I. Iron meteorites: The following minerals were found and submitted to X-ray study. Camasite and Tenite from Sikhote-Alinskiy, Coahuila, Hex River Mountains, Chestervill, Sao Juliao de Morsira, Carlton, Tazewell and Bodaybo meteorites. Hydrohetite and Hydrohematite from the melted surface layer of Tazewell meteorite. Chromite, Troilite, Schreibersite and Radbite from the Sikhote-Alinskiy meteorite. For the study of Camasite and Tenite, information given in the article of A. Bradley, A. Jay, A. Taylor (Ref. 13: "On the Lattice Spacing of Iron-Nickel Alloys", Philosophical Magazine and Journal of Science, 23, no. 155, 547-557, 1937) was used. V.I. Mikheyev (Ref. 9: Rentgenometricheskiy opredelitel' mineralov /Roentgenometric Determinant of Minerals/ Zap. Vsesoyuzn. Mineralog. obshchestva, part. 86, no. 2, 1957) investigating some iso-

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morphic series observed that the increase in dimensions of the unit cell is a linear function of the radius of present cations. He proposed the following equation for the dependence of the camasite lattice dimension on its content in nickel:
 $a = 2.86124 + 0.00041 x$, where x equals the atomic percentage of Ni. For this equation Mikheyev used data from E.R. Jette and F. Foote (Ref. 14. "X-ray study of iron nickel alloys", Am. Inst. min. metallurg. Engin. Techn. Publ., no. 670, Metal Technology 3, 1, 14, 1936). The contents of Ni in Camasite calculated from Bradley's graph and those suggested by Mikheyev, do not agree, the figures according to Mikheyev being more than 20 % higher. These discrepancies may be explained by the fact that Bradley studied artificial iron nickel alloys, whereas Mikheyev dealt with natural minerals, in which -- apart from Fe and Ni -- some Co and Cu were also present, as was shown by M.U. D'zakonova, who carried out the entire chemical analysis of minerals from the Sikhote-Alinskiy meteorite. (Ref. 2: Khimicheskiy sostav

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Sikhote-Alinskogo meteorita /Chemical Composition of the Sikhote-Alinskiy Meteorite/ Meteoritika, 16.1958). Chemical data for all further mentioned minerals were taken by the author from this study. Tenite was not found in the Sikhote-Alinskiy meteorite, but was present in the Chestervill, Sao Juliao, Carlton, Tazewell and Bodaybo meteorites. To identify it, data from Mikheyev's tables were used (Ref. 8: Rentgenomentrycheskiy opredelitel' mineralov /Roentgenometric Determinant of Minerals/ Gosgeolizdat 1957). Finally, the author expresses the opinion that at present it is impossible to quantitatively determine in any precise manner the components of iron nickel meteorites by unit cell dimensions, although it has been found that: a) when the unit cells of Camasite are small, those of Tenite are large; their dimensions can be much larger than those of artificial alloys; b) with the increase in Tenite content, the lattice spacing of Camasite increases and that of Tenite decreases. However, the author adds that these conclusions are not certain in view of the small num-

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ber of specimens studied. Therefore further studies are necessary. A sample from the melted surface layer of the Tazewell meteorite gave 50 lines on the X-ray film. 22 of these correspond to Hydro-
tite, 13 to Hydrohematite, 6 to Camasite, 5 to Tenite, 10 weak lines were not identified. The lattice spacing of Camasite and Tenite in the sample was the same as in the bulk of the meteorite. All other minerals mentioned belong to the Sikhote-Alinskiy meteorite: 1) Chromite, having the chemical composition (weights given in percentage): FeO-15.91 %; Cr₂O₃-71.23 %; MgO-11.87 %; (Total 99.01 %). The roentgenogram showed that there was in this sample Chromite with a lattice constant: $a = 8.329 \pm 0.001$ kilo XU and Chromite, with the formula $3\text{Cr}_2\text{O}_3 \cdot \text{Fe}_2\text{O}_3$, the formula of the first Chromite being $(\text{Mg},\text{Fe})\text{Cr}_2\text{O}_3$ in accordance with Mikheyev's study on spinels, (Ref. 9: op.cit.). A mineral with a formula $3\text{Cr}_2\text{O}_3 \cdot \text{Fe}_2\text{O}_3$ has never been found before either on

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earth or in meteorites. Its identification was made on the basis of data in the first supplement to the American roentgenometric card-file. These data are based on work of P.F. Wretblad, who studied a synthetic substance having the above composition. (Ref. 15: Z. f. Anorg. Chem., 189, 331, 1930). 2) Troilite, having the following chemical compositions for 3 different samples (weights given in percentage): Fe-60.78 %; Cu-0.04 %; S-36.41 %; Cr-2.08 %, (Total 99.31 %); Fe-62.46 %; Cu-0.05 %; S-34.65 %; Cr-1.06 %, (Total 98.22 %); Fe-62.84 %; Cu-0.07 %; S-34.33 %; Cr-1.08 %, (Total 98.32 %). X-ray study proved the presence of 2 compounds, one a pure Troilite, the other a mixture of Troilite plus some Chromite, with lattice distances: $a = 8.344 \pm 0.004$ kilo XU, which corresponds to the formula FeCr_2O_4 . The lattice constants of pure Troilite were: $a = 5.965$ kilo XU and $c = 11.538$ kilo XU. 3) Schreibersite was found in another sample of the same meteorite. Its composition is (weights given in percentage): Fe-69.73 %; Ni-14.64 %; Co-0.18 %; P-15.64 %, (Total

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100.19 %). Crystallographic data for its identification were taken from a work of A.G. Betekhtin (Ref. 1: Mineralogiya [Mineralogy] Gosgeolizdat, 1950), its lattice constants being: $a = 9.065 \pm 0.002$ kilo XU and $c = 4.444$ kilo XU. The last mineral identified from the same meteorite was 4) Radbite, which belongs to the same isomorphic mineral series as Schreibersite. Its Ni and P contents are smaller than those of Schreibersite, being 29.8 % and 15.2 % (weights given in percentage) respectively. The lattice constants of Radbite were determined as: $a = 9.022 \pm 0.004$ kilo XU and $c = 4.424$ kilo XU. 5) Carbonaceous Chondrites were studied from samples of the meteorites "Cold Bokkeveld", "Staroye Boriskino" and "Orgueil". This kind of mineral was found in all three meteorites and has the same lattice dimensions as the mineral found in the meteorite Migai, described in the work of V.I. Mikheyev and A.I. Kalinin. (Ref. 10: Primeneniye rentgenometricheskogo metoda k issledovaniyu veshchestvennogo sostava meteoritov [Use of the Roentgenometric

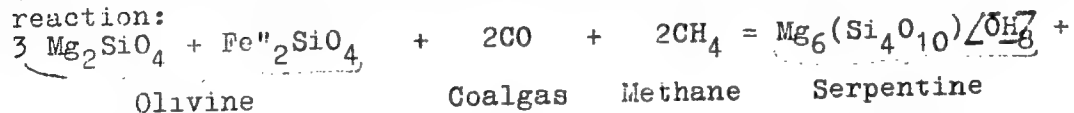
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Method for Investigating the Material Composition of Meteorites⁷
Meteorika, no. 15, 1957). It was impossible to determine its
chemical composition, but in the opinion of Mikheyev (Ref. 10:
op.cit.) this mineral is nearest to serpentine of the antigorite
type and contains a fair amount of bivalent iron (Abstractor's
Note: Lattice constants not given). The carbonaceous matter in
these meteorites is apparently amorphous. In the last part of
the article the author discusses the presence of hydrosilicates
in meteorites. He quotes Mikheyev's opinion that these silicates
are formed from olivine, not by action of water, but by the ac-
tion of carbon oxide and methane, and suggests the following
reaction:



+ 4C + 2Fe.

If the ratio of components were different certain minerals could

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be formed instead of metallic iron such as magnetite. It follows from this reaction schemati. that the ratio of water: carbon in carbonaceous meteorites should be definite: There, in fact, must be 4 molecules of H_2O for every 4 atoms of carbon; the ratio of corresponding weights being $4 \times 18 : 4 \times 12 = 72 : 48 = 1.5$. G. Boato found that the actual ratios of water and carbon in carbonaceous meteorites were in the range: 1.13 - 2.0, i.e. an average of 1.42 (Ref. 12: "The Isotopic Composition of Hydrogen and Carbon in the Carbonaceous Chondrites", Geochim. et Cosmochim. acta, 6, 209-220, 1954). These data give support to Mikheyev's opinion. The author suggests that the above described reaction should be performed on a laboratory scale -- this, says the author, should not present any technical problems -- and the reaction products be carefully examined. In conclusion the author emphasises the need to work out roentgenometric-crystallographic data tables for minerals. Such tables are of great importance for the study of meteorites in view of the minute quantities of ma-

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terial with which the investigator very often has to deal. Laboratory technician A.I. Kalinin also participated in the work described above. There are 2 figures, 13 tables and 16 references: 11 Soviet-bloc and 5 non-Soviet-bloc. The references to the English-language publications read as follows: A. Bradley, A. Jay, A. Taylor. "On the Lattice Spacing of Iron-Nickel Alloys", Philosophical Magazine and Journal of Science, 23, no. 155, 547-557, 1937; E.R. Jette, F. Foote, "X-ray Study of Iron Nickel Alloys, Am. Inst. min. metallurg. Engin. Techn. Publ., no. 670, Metal. Technology 3, 1, 14, 1936; X. R.D.C. II Am. Soc. of Testing Materials. First supplementary Card File of X-ray diffraction Data, 1945.

Card 12/12

STULOV, N.N.

Relationship between the crystalline texture, temperature, and heat of fusion of simple solids. Zap.Vses.min.ob-va 89 no.2: 143-151 '60. (MIRA 13:7)

1. *Deystvitel'nyy chlen Vsesoyuznogo mineralogicheskogo obshchestva. Kafedra kristallografii Leningradskogo gornogo instituta.*

(Metal crystals--Thermal properties)

SHAFRANOVSKIY, I.I.; STULOV, N.N.; MOKIYEVSKIY, V.A.

In memory of Viktor Ivanovich Mikheev. Zap. LGI 38:3-8 '61.
(MIRA 15:1)

(Mikheev, Viktor Ivanovich, 1912-1956)
(Bibliography--Mikheev, Viktor Ivanovich, 1912-1956)

STULOV, N.N.

Review of the unpublished scientific works of V.I.Mikheev. Zap.
LGI 38 no.2:9-25 '61. (MIRA 15:1)
(Mikheev, Viktor Ivanovich, 1912-1956)
(Bibliography--Mikeev, Viktor Ivanovich, 1912-1956)

ALYAVDIN, V.F.; VASIL'YEVA, L.F.; VITOSHINSKAYA, M.I.; GRIGOR'YEVA, L.N.;
GODLEVSKIY, M.N.; ZHERBINA, K.M.; ZHEZEZKOVA, V.N.; KISELEVA, A.N.;
KOZYREVA, Yu.A.; KULIKOV, K.V.; PAFENGOL'TS, K.N.; POLEVOY, B.F.;
SOLOV'YEV, S.P.; ~~STOLOV, N.N.~~; SHAFRANOVSKIY, I.I.

In memory of A.V.Nemilovoi. Zap.Vses.min.ob-va 90 no.6:756-757
'61. (MIRA 15:2)

(Nemilova, Aleksandra Vasil'evna, 1892-1961)

STULOV, N.N.

"Homology of crystals" by V.I.Mikheev reviewed by N.N.Stulov. Zap.
Vses. min. ob-va 91 no.1:123-124 '62. (MIRA 15:3)
(Crystallography) (Mikheev, V.I.)

STULOV, N.N.; SHAFRANOVSKIY, I.I.

V.I. Vernadskii on the symmetry of nature. Zap. Vses. min.
ob-va 92 no.5:579-586 '63. (MIRA 17:1)

STULOV, N.N.

Correlation of the heat capacity and the heat of fusion in elements. Zap.Vses.min.ob-va 93 no. 2:121-125 '64. (MIRA 17:6)

1. Kafedra kristallografii Leningradskogo gornogo instituta, problemnaya laboratoriya.

TATARINOV, P.M.; MROZENKO, N.K.; SOLOV'YEV, S.P.; STULOV, N.N.;
RUNDKVI'ET, D.V.

Grigorii Sergeevich Labazi, 1898-1953; an obituary.
Zap. Vses.min. ob-va 93 no. 2:245-246 '64. (MIRA 17:6)

STULOV, N.N.

Form of atomic spheres and their closest packing in crystal
structures. Zap. Vses. min. ob-va 93 no.3:260-265 '64.
(MIRA 18:3)

1. Leningradskiy gornyy institut, kafedra kristallografii.
Problemnaya laboratoriya.

STULOV, N.N.

Work of the editorial board of the journal "Zapiski Vsesoiuznogo mineralogicheskogo obshchestva" in 1957-1963. Zap. Vses. min. ob-va 93 no.5:506-509 '64. (MIRA 17:11)

SHAFRANOVSKIY, I.I.; SOLOV'YEV, S.P.; STILOV, N.N.

100th anniversary of the Department of Geology of the Franko Lvov
University. Zap.Vses.min.ob-va 93 no.6:735-736 '64.

(MIRA 18:4)

STULOV, T.T.; TRUSOV, L.P.

Use of precast concrete elements in water supply pumping stations.
Vod. i san. tekhn. 1 no. 1: 14-16 Ap'55. (MLRA 8:11)
(Pumping stations) (Precast concrete construction)

510/... 17
BALASHOV, A.I., STULOV, T.T. (Moskva)

Water cleaning installation for oil field flooding. Stroi. pred. neft.
prom. 1 no. 9:6-10 N '56. (MIRA 10:1)

1. Zamestitel' glavnogo inzhenera Giprospeetsnefti (for Balashov).
2. Glavnyy konstruktor Giprospeetsnefti (for Stulov)
(Oil field flooding) (Water--Purification)

STULOV, T.T., inzhener.

Underground reinforced concrete storage tanks for petroleum products.
Stroi. pred. neft. prom. 2 no.2:1-5 F '57. (MIRA 10:4)
(Petroleum--Storage) (Reinforced concrete construction)

STULOV, T.T., inzh.

Results of the All-Union contest on "Standard designs of precast reinforced tanks with a capacity of 5000 M³ for light petroleum products." Stroi. truboprov. 3 no.7:26-30 JI '58. (MIRA 12:1)
(Tanks) (Precast concrete construction)

SOV/95-59-6-5/12

14(10)

AUTHORS: Stulov, T.T. and Trusov, L.P., Engineers

TITLE: New Designs of Underground Small Capacity Reinforced Concrete Reservoirs for Oil Products

PERIODICAL: Stroitel'stvo truboprovodov, 1959, Nr 6, pp 15 - 17 (USSR)

ABSTRACT: The Institute Giprospetspromstroy has worked out standard designs for typical reinforced concrete reservoirs of 100 and 200 cu m capacity. Reservoirs (arch Nr T-1164 and T-1165) for light oil products and lubricants consist of a metal lining and gunite wall. The article describes and illustrates this simple design and inexpensive construction. After the metal lining is put in place and welded to the base plate to form a reservoir, it is filled with water and covered on the outside with gunite; the necessary equipment is mounted on 4 manhole metal covers. The gunite wall thickness is 6 cm for the 100 cu m reservoir and 8 cm for the 200 cu m reservoir. - Designs for reservoirs (arch Nr T-1160 and T-1161) for dark oil products provide for prestressed concrete reinforcement. The novelty of this method consists in the tight winding under stress of the wire round the cone-shaped surface of the reservoir. The wire does not touch the reservoir itself but passes over

Card 1/2

STULOV, T.T.

Using precast concrete in water supply and sewerage structures.
Vod. i san. tekhn. no.8:10-16 Ag '61. (MIRA 14:9)
(Sanitary engineering)
(Precast concrete construction)

STULOV, T.T.

Determining the bending moment in the supporting section of a wall of precast reinforced concrete cylindrical storage vessels.

Izv. vys. ucheb. zav.; neft' i gaz. 7 no.10:105-111 '64.

(MIRA 18:2)

1. Moskovskiy institut neftekhimicheskoy i gazovoy promyshlennosti im. akad. I.M. Gubkina.

1 6325465 EPT(d:/EPT(I)/EPA(h) LJP(c) BC

1970-1971. 1. A. A. Gal'kin. "Elektromekhanika" - razvitiye i novaya tekhnika.

AUTHOR: Stulov, V. A. 15

TITLE: Frequency-type supervisory-control systems

CITED SOURCE: Tr. K. rev. 1, polit. tekhn. in-ta. t. 42, 1947 26-26

THIS TASK: Form new remote control system, remote control code, supervisory

[illegible]

Card 1/2

L 63753-65

ACCESSION NR. 18561346

alternating-quality permutation code. It can detect a number of errors in the code combination and, hence, can be used in the high-noise channels. A decoder for this code is described. It correlates alternating-quality code and also group-selection

characterize the telecontrol-equipment capacity depending on the code type and the number of frequencies in the packet. The alternating-packet and the alternating-quality codes have the highest capacity. Other codes have the same numbers

4116
Card 2/2

STULOV, V.A., inzh.

Static interference rejection of changeable transmission
group codes. Izv. vys. ucheb. zav.; energ. 7 no.2:23-30
F '64. (MIRA 17:3)

1. Kiyevskiy ordena Lenina politekhnicheskoy institut.
Predstavlena kafedroy avtomatiki i telemekhaniki.

29213

S/102/61/000/005/005/005
D274/D302

9.7500 (1024)

AUTHORS: Skyrta, B.K., and Stulov, V.A. (Kyyiv)

TITLE: Sequential magnetic decoder

PERIODICAL: Avtomatyka, no. 5, 1961, 73 - 76

TEXT: A decoder incorporating magnetic elements with a rectangular hysteresis-loop is described. It is destined for contactless frequency systems in remote control. The decoder operates on a two-code signal, having two frequencies which follow each other in time. The advantage of such a decoder over other ferrite-diode decoders consists in that it no longer requires a special switching element for signal reception. The decoder incorporates toroidal ferrite cores. A block diagram of the decoder is shown. Each core has 5 windings. Winding 1 serves for remagnetizing the core from state 0 to 1; winding 2 serves for counting, it changes the core from 1 to 0; counting takes place only when the core is remagnetized from 1 to 0, by means of diodes in the circuits of windings 4 and 5; windings 4 and 5 are output windings which connect the in-
Card 1/3

29213

S/102/61/000/005/005/005
D274/D302

Sequential magnetic decoder

dividual triggers of the controlled object. The frequency pulse arrives at the filter inputs and after filtering and rectifying -- at the input of the Schmitt trigger (limiter); thereupon, the pulse is amplified and applied to the magnetic decoder. The key triodes KO and KC are controlled by a univibrator which operates on transmission of the first code (indicating the character of the operation). Thereupon, one of the keys (KC) is opened, and the other (KO) -- closed. The first code arrives at the corresponding terminal of the decoder input. The following signal is applied to the second input-terminal (after passing through the key-amplifier). The cores of windings 2 (which are placed horizontally) are connected in series with the windings 1 of the cores which are remagnetized. Assume the pulse is applied to the fifth terminal; then the vertical series of cores (of winding 1) which correspond to that terminal, are remagnetized from 0 to 1; the horizontal series w_2 does not change its state with the exception of core 4 which changes from 1 to 0; thereby, a pulse is applied from its windings 4 and 5 to the corresponding control trigger. After the informa-

Card 2/3

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Sequential magnetic decoder

S/102/61/000/005/005/005
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tion, contained in the code, has been received, conversion takes place by means of the conversion winding 3 with which every core is equipped. After the conversion, the decoder re-assumes its initial position, i.e .state 0 in every core. There are 3 figures.

SUBMITTED: March 20, 1961

4

Card 3/3

KATKOV, F.A., kand.tekhn.nauk; STULOV V.A., inzh.

Alternate-message frequency code and its realization.

Izv. vys. ucheb. zav.; energ. 5 no.10:22-32 0 '62.

(MIRA 15:11)

1. Kiyevskiy ordena Lenina politekhnicheskoy institut.

Predstavlena kafedroy avtomatiki i telemekhaniki.

(Remote control)

(Telecommunication)

SMIDOVICH, V.A., inzh.; ZHAK, V.Z., inzh.; SKIRTA, B.K., inzh.; STULOV, V.A.,
inzh.

Experience in operating a frequency remote control system and a
signaling system. Elek.sta. 33 no.2: 72-75 F '62. (MIRA 15:3)
(Telemetering)(Remote control)

KATKOV, Fedor Aleksandrovich, kand. tekhn. nauk. Prinimali uchastie: STULOV, V.A., inzh.; POPOV, A.B., inzh.; DIDYK, B.S., inzh.; SHESTOPALOV, V.N., kand. tekhn. nauk, retsenzent; PISARENKO, M.G., inzh., red.izd-va; STARODUB, T.A., tekhn. red.

[Teoretical principles of remote control] Teleupravlenie;
osnovy teorii. Kiev, Gostekhizdat USSR, 1963. 231 p.
(MIRA 16:11)

(Remote control)

STULOV, V.A. (Kiyev)

Concerning some definitions and classifications of codes.
Avtomatyka 8 no.1:63-66 .53. (MIRA 16:3)
(Information theory) (Automatic control)

L 1051-66 EWT(d)

ACCESSION NR: AR5006541

S/0274/64/000/012/A015/A015
621.391.15

SOURCE: Ref. zh. Radiotekhnika i elektrosvyaz'. Sv. t., Abs. 12A75

AUTHOR: Stulov, V. A.

TITLE: Code-combination structure

CITED SOURCE: Tr. Kiyevsk. politekh. in-ta, v. 42, 1963, 78-85

TOPIC TAGS: code, code combination, code structure

TRANSLATION: Definitions are offered for several concepts characterizing the structure of the code combinations that constitute a code. Each combination comprises one- or multi-element sendings whose number and sequence are determined by the code algorithm (the elements are transmitted simultaneously). The code element is a distinct elementary portion of the sending; the element is active if it carries usable information (which was in the message before its transmission); the element is passive if it carries ancillary information (which is added to the usable information for service purposes). The sendings are active if all

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ACCESSION NR: AR5006541

their elements are active; mixed, if only a portion of the elements is active; passive, if all their elements are passive. In a code combination, the sendings form rows sequentially and according to one system of time components. The number of used systems determines the number of rows. The total duration of sequential sendings in a row determines its order. The first-order row has a maximum duration and a higher (for equal duration) number of sendings. In the general case, the code combination may be represented, in Cartesian coordinates, by a three-dimensional quantity because it is characterized by its position in time, the number of sendings, and the number of elements in a sending; the corresponding averaged numerical characteristics can be easily computed from the code algorithm and the number of combinations in the code. Sometimes the code combination can be adequately presented in a two-dimensional or single-dimensional space. In this sense, many codes in use are single-dimensional. Bibliography: 5 titles.

SUB CODE: DP

ENCL: 00

Card 2/2 *SP*

L 4031E-65 EWT(d) Pac-4/Pae-2/Pj-4

5/0271'64/000/006/A054/A054

ACCESSION NR: AR4241302

SOURCE: Ref. zh. Avtomatika, telemekhanika i vychislitel'naya tekhnika.
Svodnyy tom, Aug. 64306

AUTHOR: Katkov, F. A.; Stulov, V. A.

TITLE: Group of alternating-packet codes for telemechanical systems

CITEL SOURCE: Sb. Tekhn. kibernetika. Kiev, Gostekhnizdat USSR, 1963, 124-128

TOPIC TAGS: telemechanical code, supervisory control code

TRANSMISSION: The efficiency of using alternating packet codes (APC) for transmitting information in telemechanical systems is discussed; the code consists of alternating packets transmitted in succession, without dividing time intervals. The packets are of two types: packets of high quality and packets of low quality. The packets of high quality are transmitted with complete accuracy, and alternating-quality packets are transmitted with APC, the packets of high quality are transmitted with a higher frequency and are combined according to a permutation or a combination.

while in the second case $M = C_{\alpha}^m$, where m and k are the number of frequencies in

Card 1/3

L 40315-65

ACCESSION NR: AR4044802

the packet and code, respectively; n is the number of packets in the code combination (CC). In the incomplete APC where the adjacent packets have no identical frequencies, the number of CC is permutations and combinations will be:

$$M = \frac{P!}{(P-n)!} \quad \text{and} \quad M = \frac{P!}{n!} \quad \text{respectively, where } P \text{ is the number of}$$

permutations of the constituent elements in the second and subsequent packets. In the alternative quality code where the packets comprise the same frequencies,

The number of CC in the complete APCs having a group selection can be estimated from this formula. $M = M_1, M_2, \dots, M_i$ where M_1, M_2, \dots, M_i is the number of combinations in the first, second, and i -th groups. Modifications of APC with group selection are analyzed, and formulas for estimating the number of CC are given. Thus, for example, the number of CC in an APC with group selection, when any group is composed only of those possible packets which are not used in other groups, is equal

$$M = \frac{C_k^m}{1}, \quad \text{under the condition that } C_k^m \text{ is exactly divisible by } 1.$$

The number of CC, when the groups can be selected by the frequencies sent simultaneously, is equal to

$$M = \left(\frac{k}{1} \right), \quad \text{under the condition that } k \text{ can be exactly}$$

Card 2/3

L 20017-65 ENT(d)/S2D-2/FS(b) Pac-4/Pae-2/Pj-4 AFETR/ESD(dp)
 S/0271/64/000/006/A053/A054
 ACCESSION NR: AR4044801

SOURCE: Ref. zh. Avtomatika, telemekhanika i vychislitel'naya tekhnika. SVodnyy
 tom, Abs. 0A305

AUTHOR: Stulov, V. A.

TITLE: Some alternating quality codes used in telemechanical systems 7

CITED SOURCE: Sb. Tekhn. kibernetika. Kiev, Gostekhizdat USSR, 1963, 128-133

TOPIC TAGS: telemechanics, code

TRANSLATION: Alternating quality codes (AQC) can be used in telemechanical systems as error-detection codes, the frequency being used as quality. A simple AQC can detect, in a code combination, the presence of an adjacent frequency instead of the correct frequency. An arrangement-type AQC permits detecting the wrong frequency from the same code combination. A permutative AQC permits detecting, in a code combination, any wrong frequency which corresponds to a double detection. Relative efficiencies of the above codes are estimated, the efficiency being a ratio of the number of code combinations in a given code to their number in a base code

Card 1/2

L 20017-65

ACCESSION NR: AR4044801

that has the same number of frequencies, packets, and frequencies per packet in
the code combination. Effect of the number of frequencies and packets upon the

SUB CODE: EC

ENCL: 00

Card 2/2

L 3278-66 EWT(d)/FSS-2

ACCESSION NR: AR5014345

UR/0271/65/000/005/A016/A016
621.398.001:621.391.13

SOURCE: Ref. zh. Avtomatika, telemekhanika i vychislitel'naya tekhnika.
Svodnyy tom, Abs. 5A111

AUTHOR: Stulov, V. A. 44

TITLE: Principles of selection 26
13

CITED SOURCE: Sb. Ustroystva i elementy prom. telemekhan. Kiyev, 1964, 5-11

TOPIC TAGS: signal transmission 44

TRANSLATION: It is suggested that all principles of selection (PS) be reduced to these four categories: quality, division, distribution, and combination. With the quality principle, the signal division depends on various values of the parameters of the information carrier. The signal consists of a single-element packet and differs from other signals qualitatively or quantitatively. Simultaneous transmission of several values of the same signal indicant is excluded. The signal indicant means a qualitative indicant of the information carrier and also presence

Card 1/2

L 6434-66 EWT(d)/EWP(v)/EWP(k)/EWP(h)/EWP(l)

ACC NR: AR5014352

SOURCE CODE: UR/0271/65/000/005/A043/A043

SOURCE: Ref. zh. Avtomatika, telemekhanika i vychislitel'naya tekhnika.
Svodnyy tom, Abs. 5A303

AUTHOR: Skirta, B. K.; Stulov, V. A.

TITLE: Frequency selectors used in remote-control systems 14

CITED SOURCE: Sb. Ustroystva i elementy prom. telemekhan. Kiyev, 1964, 63-68

TOPIC TAGS: frequency selector, telemetering, remote control system

TRANSLATION: Selectors are described which consist of parallel or series resonance circuits, electromechanical 1- and 2-reed vibrators, synchronous filter generators, and LC differential filters whose operation depends on parametric resonance. One- and 2-reed vibrators have passbands of 1 and 3%. A reed vibrator combined with a transistor is used as a generator. The synchronous filter generators and differential filters are the most economical devices among all selectors used in remote-control systems. The first operates on the principle of synchronous reception. They include a semiconductor LC-oscillator, a comparison circuit, and a Schmidt trigger. The on-off operating transistor acts as a controlled conductance. The

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L 6434-66

ACC NR: AR5014352

synchronous filter generator is used as a filter or as a generator. The filter generator produces a signal when the frequency of an arrived wave coincides with or is very close to the frequency of the local oscillator. 3ib. 6, figs. 7.

SUB CODE: DP

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Card 2/2

L 3334-66 EWT(1)/EWA(h)

ACCESSION NR: AR5014344

UR/0271/65/000/005/A015/A016
621.398.3:621.391.15

SOURCE: Ref. zh. Avtomatika, telemekhanika i vychislitel'naya tekhnika.
Svodnyy tom, Abs. 5A109

AUTHOR: Stulov, V. A.

TITLE: Noise-duration and noise-amplitude analyzer

CITED SOURCE: Sb. Ustroystva i elementy prom. telemekhan. Kiyev, 1964,
114-116

TOPIC TAGS: noise analyzer, noise analysis

TRANSLATION: The noise immunity of a code can hardly be evaluated without knowing the duration and amplitude distribution of noise. A noise analyzer consisting of threshold devices, exponential selectors (ES), coincidence circuits, inverters, and counters is proposed for determining noise having various amplitudes and durations. For simplicity's sake, an analyzer with two amplitude levels and three duration levels is described. The noise signals pass the

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L 3334-66

ACCESSION NR: AR5014344

threshold device where they are segregated according to their levels, then an ES where they are subdivided according to their durations, then they are applied to the coincidence circuit, and after that — via suitable inverters — they go to the counters which count the noise signals of specified levels and durations. The threshold devices consisting of semiconductor inverters have, at their entrance, diodes with different thresholds. Unlike conventional circuits, inverters are connected to the ES outputs. Only those pulses pass ES whose duration (at the pass level of the final threshold device) exceeds the delay time set for the corresponding ES. By selecting a definite number of threshold devices and ES's, the required noise analyzer can be constructed. Fig. 1.

SUB CODE: EC

ENCL: 00

Card 2/2

JP

L 34875-66

ACC NR: AR6014184

SOURCE CODE: UR/0271/65/000/011/A022/A022

AUTHOR: Stulov, V. A.

36
8

TITLE: Formation of channel components with alternating-packet codes

SOURCE: Ref. zh. Avtomatika, telemekhanika i vychislitel'naya tekhnika, Abs. 11A151

REF SOURCE: Vestr. Kiyevsk. politekhn. in-ta. Ser. avtomatiki, elektropriborostr. i radioelektron., no. 1, 1964, 42-44

TOPIC TAGS: telemetry, telemetry system

ABSTRACT: Sequential components in the alternating-packet codes are time formed, usually, by alternating the frequency packets or by changing the code elements that have various values of the same or different parameter of the elementary signal. The sequential components of a channel can be formed, too, by changing the elementary sinusoidal signals differing in their amplitudes or phases. The sequential components of a channel can be time formed by changing the values of one or several signal characteristics. Five figures. Bibliography of 1 title.
V. M. [Translation of abstract]

SUB CODE: 09

Card 1/1

UDC: 621.398.3:621.391.15

ACC NR: AT6022308

SOURCE CODE: UR/0000/66/000/000/0053/0056

AUTHOR: Stulov, V. A.

ORG: none

TITLE: Combinatorial properties of codes in remote control

SOURCE: Vsesoyuznaya nauchnaya sessiya, posvyashchennaya Dnyu radio. 22d, 1966.
Sektziya telemekhaniki. Doklady. Moscow, 1966, 53-56

TOPIC TAGS: coding, coding evaluation, combinatorial analysis, signal coding,
remote control

ABSTRACT: In the limiting case a code combination may consist of a single unit. The minimum number of code elements in the latter is one. If the code consists of such combinations only, then its capacity is equal to the number of different code elements. Each code element possesses d attributes which may assume g values. In the case considered, code combinations are obtained by combining the values of attributes. Consequently, in the limiting case, the values of attributes and not the code elements are taken into a code combination. The number of values of the attributes serves as the code base, because various code combinations are obtained when they are combined. A code combination may consist of a single multi-clement unit. In this case several code elements are transmitted simultaneously. Alphabets for all parallel components can be both identical and different. In the case considered, the code has a common alphabet

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-ACC NR: AT6022308

only when the alphabets of all its parallel components possess identical elements, generally, a code combination consists of several units. Then various code combinations are obtained by combining units in them. In codes which are at present most widely known, basically those code combinations consisting of single-element units or a single unit are used. In such a code the number of code elements serves as the base. Orig. art. has: 8 formulas.

SUB CODE: 09/ SUBM DATE: 24Mar66/ ORIG REF: 002

13/

Card 2/2

28963

S/179/61/000/003/001/016
E031/E435

115200

AUTHOR: Stulov, V.P. (Moscow)

TITLE: The boundary layer on a flat plate taking account of
imbalance due to rate of dissociation

PERIODICAL: Akademiya nauk SSSR. Izvestiya. Otdeleniye tekhnicheskikh
nauk. Mekhanika i mashinostroyeniye, 1961, No.3, pp.5-12

TEXT: The equations for a laminar boundary layer on a flat plate
in the case of a reacting binary mixture are successively
transformed by the introduction of Dorodnitz and Blasius
variables and then two-dimensional variables. The velocity
constant of recombination is assumed constant. Two types of
boundary conditions are considered, the first corresponding to the
walls being chemically and thermally isolated and the second to the
case where the catalytic wall has a given constant temperature and
the concentration of atoms on the wall is also constant. Both
problems lead to a complicated system of non linear partial
differential equations which can be simplified by assuming that
everywhere in the flow the characteristic time of the chemical
reaction is small by comparison with the characteristic time of the
flow and that the temperature gradients are not greater than of
Ord 1/3

28963

S/179/61/000/003/001/016

E031/E435

The boundary layer is flat ...

order unity. Approximate solutions can then be derived by considering small perturbations. Considering the first problem, it is found that the velocity profile is given by the well-known Blasius function and the concentration is determined by the enthalpy profile (in the zero-order approximation). In the first-order approximation the imbalance has no effect on the enthalpy distribution. The distribution curve for the deviation of the concentration from its equilibrium value is a hyperbola for constant w . The temperature of the wall at the nose corresponds to the temperature of the gas particles of the incident flow slowed without hence to an incision. The temperature falls downstream of the nose to a value corresponding to that of the slowed particles with equilibrium concentration. The temperature of a gas particle is greater than the value corresponding to equilibrium dissociation due to the slowing down of the dissociation a smaller part of the translation energy of the molecule is converted in the chemical reaction. The second problem is dealt with very briefly. In the first approximation the perturbation in the concentration has no effect on the heat flow. There are

Card 4/5

10.3000

26.5000

S/179/61/000/006/002/011
E032/E514

AUTHOR: Stulov, V.P. (Moscow)

TITLE: Heat transfer in the laminar boundary layer on a plate
with allowance for the absence of chemical equilibrium

PERIODICAL: Akademiya nauk SSSR. Izvestiya Otdeleniye
tekhnicheskikh nauk. Mekhanika i mashinostroyeniye,
no. 6, 1961, 11-14

TEXT: This paper is a continuation of previous work reported
by the author in Ref. 1 (Izv. AN SSSR, OTN, Mekhanika i mashino-
stroyeniye, 1961, No. 3). The heat transfer to the wall in the
boundary layer of a reacting atomic-molecular mixture depends on
the change in the viscosity-density product, the Prandtl number
and the Lewis number across the boundary layer. The author
derives approximate formulae which may be used to calculate the
effect of changes in the physical parameters on the heat flow, on
the assumption that the changes are small in the boundary layer.
The calculation takes into account binary diffusion and is applied
to the special case of oxygen and nitrogen. It is shown that the
calculations are in good agreement with experimental results over

✓B

Card 1/2

S/179/62/000/003/001/015
EO31/E335

24.4300

AUTHOR: Stulov, V.P. (Moscow)

TITLE: The flow round a convex angle of an ideal dissociating gas taking account of disequilibrium

PERIODICAL: Akademiya nauk SSSR. Izvestiya. Otdeleniye tekhnicheskikh nauk. Mekhanika i mashinostroyeniye, no. 3, 1962, 4 - 10

TEXT: The flow round an angle nearly equal to 180° of an ideal dissociating gas was studied by Clarke (J. Fluid Mech., 1960, v.7, p. 4). In this paper an approximate solution is given for the problem for an arbitrary angle and the change in the discontinuity of the normal derivatives of the gas-dynamic variables along the characteristic separating the uniform incident flow from the expansion fan is studied. Disequilibrium occurs because of the finite velocity with which energy is transmitted by the inert degrees of freedom of atoms and molecules. The characteristic time of flow can become equal to the characteristic time to establish equilibrium. The system of equations of motion of an inviscid gas must be supplemented by the equations describing the

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Card 1/2

SOURCE: AN 5544 12/25/44

... of the total ...
 ... of the gas-dy-
 ... parameters are analyzed, a comparison of the velocities of
 three reactions: $N + O = NO^+ + e$, $N + O = N^+ + O$, and $O + O = O_2^+ + e$,
 shows that the first reaction is predominant at less than Mach 25,
 though the velocity of the second reaction increases faster when the

Card 2/3

ASSOCIATION: none

SUBMITTED 23 Jun 64

ENCL: 00

SUB CODE: ME

NO REF SOV: 005

OTHER: 002

ATD PRESS: 3228

Card 3/3

L 08066-67 ENT(d)/ENT(l)/ENP(m)/ENT(m)/ENP(w)/ENP(k) IJP(c) WW/EM
 ACC NR: AP6034531 SOURCE CODE: UR/0421/66/000/005/0003/0007 7/

AUTHOR: Stulov, V. P. (Moscow); Turchak, L. I. (Moscow)

ORG: Institute of Mechanics, Moscow State University (Institut mekhaniki MGU)

TITLE: Supersonic air flow past a sphere¹⁰ with vibrational relaxation taken into account

SOURCE: AN SSSR. Izvestiya. Mekhanika zhidkosti i gaza, no. 5, 1966, 3-7

TOPIC TAGS: supersonic aerodynamics, supersonic flow, shock wave, vibration relaxation, relaxation process, stagnation point, degree of freedom

ABSTRACT: A numerical solution of the problem of supersonic air flow over a sphere when there is nonequilibrium excitation of vibrational degrees of freedom of the molecular components is obtained by the method used in a previous work (Izvestiya AN SSSR, Mekhanika, no. 1, 1965). The laws of conservation of mass, energy, and momentum on the shock wave and the condition of impermeability of the sphere surface are taken as boundary conditions. Calculations were carried out for flows over a sphere of 0.75 cm radius in the Mach range from $M_\infty = 4$ to

Card 1/2

STULOVA, A. F.

Geese - Gor'kiy Province

Hatching goose eggs at the Pavlovo Incubator Station, Ptitsevodstvo No. 2, 1953.

9. Monthly List of Russian Accessions, Library of Congress, May 1953, Unclassified.

STULOVA, Anna Fedorovna; SHUTOV, Nikolay Ivanovich

[Leading poultry farmers] Peredovye ptitsevody. [Gor'kii]
Gor'kovskoe kn-vo, 1954. 36 p. (MLRA 9:10)
(Poultry)

STULOVA, I.L.,referent.

Crushing operations at the Outokumpu Plant (from a report at
the World Congress on Mineral Dressing held in Stockholm).
Obog.rud 3 no.4:38-42 '58. (MIRA 12:2)
(Outokumpu--Ore dressing) (Stockholm--Ore dressing--Congresses)

MAKOVSKIY, N.D.; STULOVA, I.L.

Now trends in the field of crushing and grinding. TSvet. met. 33
no.10:92-94 0 '60. (MIRA 13:10)
(United States--Ore dressing)

5101011, 111
NOVIKOV, A.V.; GANINA, A.Z.; ONEGINA, A.K.; ~~SEULOVA, M.V.~~; AZAROVA, L.A.;
DAN'KOVA, M.N.; OPOLCHENTSEVA, T.D.; SHIBAYEV, D.P.; ZHABYKO, Ye.G.;
MINKINA, A.G.; OVSYANKINA, Ye.I.; SAVENKOV, F.S., red.; SLEMZIN,
A.A., red.; FOMICHEV, P.M., tekhn.red.

[Economy of Kaluga Province; collected statistics] Narodnoe khoziai-
stvo Kaluzhskoi oblasti; statisticheskii sbornik. Moskva, Gos.stat.
izd-vo, 1957. 142 p. (MIRA 11:6)

1. Kaluzhskaya oblast', Statisticheskoye upravlenie. 2. Statisti-
cheskoye upravleniye Kaluzhskoy oblasti (for all except Savenkov,
Slemzin, Fomichev) 2. Nachal'nik Statisticheskogo upravleniya
Kaluzhskoy oblasti (for Savenkov)
(Kaluga Province--Economic conditions--Statistics)

STULOVA, M.V., inzh., otv. za vypusk; VOROTNIKOVA, L.F., tekhn. red.

[Factory regulations for repairing multiple-units of d.c. trains; change in the regulations of 1955 for the general overhaul and minor repair of multiple-unit cars] Pravila zavodskogo remonta seksii elektropoezdov postoiannogo toka; vzamen Pravil kapital'nogo i srednego remontov elektrostantsii izd. 1955 g. Moskva, Transzheldorizdat, 1963. 390 p.
(MIRA 16:5)

1. Russia (1923- U.S.S.R.) Glavnoye upravleniye lokomotivnogo khozyaystva.

(Electric railroads--Maintenance and repair)

STULOVA, M.V., inzh., otv.za vypusk; MEDVEDEVA, M.A., tekhn. red.

[Regulations governing the repair of multiple-unit rail cars of d.c. trains in railroad repair shops; superceding the regulations for the maintenance and repair of multiple-unit rail cars approved by the Ministry of Railroads on May 21, 1955] Pravila depovskogo remonta seksii elektropod'ezdov postoiannogo toka; vzamen Pravil tekushchego remonta, ukhoda i soderzhaniiia elektroseksii MPS ot 21/V 1955 g. Moskva, Transzheldorizdat, Moskva, 1963. 426 p. (MIRA 16:4)

1. Russia (1923- U.S.S.R.) Glavnoye upravleniye lokomotivnogo khozyaystva.

(Electric railway motors--Maintenance and repair)

(Electric railroads--Maintenance and repair)

GURKO, Z.V.; STULOVA, O.V.; BARYKINA, O.A., otv.red.; LUCHKINA, A.N., red.
izd-va; ASTAF'YEVA, G.A., tekhn.red.

[Development of Soviet science during 40 years; a bibliography of
anniversary literature published in 1957 and 1958] Razvitie so-
vetskoi nauki za 40 let; ukazatel' iubileinoi literatury 1957-1958
gg. Sost.Z.V.Gurko i O.V.Stulova. Moskva, 1960. 87 p.

(MIRA 13:6)

1. Akademiya nauk SSSR. Fundamental'naya biblioteka obshchestvennykh
nauk.

(Bibliography--Science)

LUKOMSKAYA, A.I.; REZNIKOVSKIY, M.M.; ORLOVSKIY, P.M.; STUKALOVA, A.F.
Prinimali uchastiye: GORINA, A.K.; STULOVA, .T.

Efficient laboratory method for determining the tendency of
rubber mixtures for prevulcanization. Trudy Nauch.-issl. inst.
shin. prom. no.7:154-167 '60. (MIRA 14:8)
(Vulcanization) (Rubber, Synthetic--Testing)

LUKOMSKAYA, A.I.; ORLOVSKIY, P.N.; MEREZHANNYY, S.B.; STUKALOVA, A.F.;
Prinimali uchastiye: SAMOKHODKINA, K.G.; KALINOVA, L.T.;
GORINA, A.K.; STULOVA, V.T.

Effect of the surface-to-volume ratio of a test piece in the
evaluation of the processing qualities of rubber blends. Kauch.
i rez. 20 no. 4:36-42 Ap '61. (MIRA 14:5)

1. Nauchno-issledovatel'skiy institut shinnoy promyshlennosti (for
Lukomskaya, Orlovskiy, Merezhanny, Stukalova).
(Rubber, Testing)

STULOVA, Ye.A.

Clinical aspects of acute industrial intoxication with dibromoethane.
Trudy GIGT no.9:79-82 '62. (MIRA 17:9)

PASCULESCU, T.; BLIDARU, P.; STULOVSKI, A.

A new procedure for the treatment of total rectal prolapse.
Rumanian M. Rev. 3 no.4:62-64 O-D '59.
(RECTUM, surgery)

L 35031-65 ENT(m)/ENP(b)/ENP(t) JD

8/0286/65/000/005/0024/0034 35
34
8

ACCESSION NR: AP5008155

AUTHOR: Paton, B. Ye.; Dudko, D. A.; Medovar, B. I.; Latash, Yu. V.; Maksimovich, B. I.; Shevchenko, A. I.; Stupak, L. M.; Goncharenko, V. P.; Grigor'yev, L. P.; Petukhov, G. K.; Chudin, N. I.; Lubenets, I. A.; Yartsev, M. A.; Keys, M. V.; Tulin, N. A.; Kapel'nitskiy, V. G.; Privalov, N. T.; Pig'mennov, V. B.; Kholodov, Yu. A.; Bystrov, S. N.; Bastrakov, N. F.; Donets, I. D.; Bilayev, A. Ya.

TITLE: Method of electroslag casting of ingots. Class 18, No. 168743

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 5, 1965, 34

TOPIC TAGS: ingot casting, ingot electroslag casting, electroslag melting, steel melting, alloy melting, metal melting

ABSTRACT: This Author Certificate introduces a method of electroslag casting of ingots in an open or protective atmosphere or in vacuum, in which slag is first melted in a mold with a nonconsumable or consumable electrode arc or plasma jet. To improve the metal quality and the ingot surface and to raise the yield, the molten metal or, if needed, the slag is poured into the mold through a hollow consumable or nonconsumable electrode (see Fig. 1 of the Enclosure). Orig. art. has: 1 figure. (ND)

Card 1/3

L 35031-65

ACCESSION NR: AP5008155

ASSOCIATION: Chelyabinskiy metallurgicheskiy zavod (Chelyabinsk Metallurgical Plant)

SUBMITTED: 06Feb63

ENCL: 01

SUB CODE: MM, IE

NO REF SOV: 000

OTHER: 000

ATD PRESS: 3215

Cord 2/12